

Chapter 6

Comparative Systematic Literature Review on Digital Transformation and Sustainability

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ABSTRACT

For many organizations, digital transformation and sustainability are often viewed as separate paradigms. Recent research has explored the potential impacts of digital initiatives and sustainable solutions and recognized the interrelationship between digital transformation and sustainability. To shed light on the convergence of digital transformation and sustainability, this chapter conducted a comparative literature review to identify key dimensions of digital transformation and sustainability frameworks. Among the identified dimensions, six dimensions, including Strategy and Vision, Innovation, Technology, People, Organization, and Ecosystem and Partnership, were identified as the common themes. They also lay out a solid foundation for further exploring the 'digital sustainability paradigm'.

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INTRODUCTION

Over the decades, humanity has observed several trends that have profoundly shaped economies, societies, and the global landscape. According to Broccardo et al. (2023), since the 1990s, social and environmental issues have played a key role, in influencing both operating and strategic levels of organizations, steering them towards greater sustainability. In the same vein, the emergence of digital technologies has revolutionized organizational conduct in profound ways (Nguyen et al., 2024). Coupled with digitalization, sustainability gains even more significant importance among investors and regulators. Firms are harnessing digital technologies to foster sustainability innovations, thereby enhancing their environmental footprints and overall performance (Lu et al., 2023). Consequently, digitalization and sustainability are recognized as the foremost market influences currently and are projected to remain so (Kiron & Unruh, 2022).

Digitalization is characterized by Isensee et al. (2023) as a transformation that reconfigures companies' business models through fundamental changes to core processes, products, services, customer interactions, and digital technology utilization. Digitalization can increase performance efficiency and revenue by 20% (Parida et al., 2019). Likewise, organizations with greater digital maturity are shown to achieve revenue growth rates that are sixfold higher than those of their less digitalized counterparts (Acciarini et al., 2022). Digitalization is a step towards the more comprehensive journey of digital transformation. While digitalization refers to the integration of digital technology into all areas of a business, fundamentally changing how firms operate and deliver value to customers, it is the groundwork for the overarching process of digital transformation. Digital transformation, as conceptualized by Unruh and Kiron (2017), represents an innovation of business models and processes to capitalize on digital opportunities fully. It is not simply the digitization of information or the digitalization of processes but a strategic reorientation that redefines the organization in the digital age, detailing how firms can remain agile and adapt to digital innovations (Otia & Bracci, 2022). This broader concept includes changes not only in technology but also in strategy, culture, and leadership (Bumann & Peter, 2019), transitioning from the "what" of digitalization to the "how" and "why" of integrating digital innovation into the heart of business strategy. Digital transformation not only streamlines existing business processes but also facilitates the creation of innovative customer solutions and new business fields, solidifying competitive advantages and ensuring long-term viability.

Correspondingly, sustainability emerges as a priority placed among corporates and investors, with its strategic relevance spreading across broader stakeholders. Firms are increasingly integrating sustainable practices into their operations, driven by legitimacy, internal progress, and market success (Broccardo et al., 2023). Ex-

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